United States Department of the Interior
Bureau of Land Management

FINDING OF NO SIGNIFICANT IMPACT and DECISION RECORD

ENVIRONMENTAL ASSESSMENT FOR 3 BLM ALLOTMENTS
LOCATED IN
SAN MIGUEL, SANTA FE, AND UNION COUNTIES

DOI-BLM-NM-F020-2012-0026-EA

BLM

U.S. Department of the Interior
Bureau of Land Management
Taos Field Office
226 Cruz Alta Road
Taos, New Mexico 87571
575-758-8851

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Based on the analysis of potential environmental impacts contained in the attached Environmental Assessment DOI-BLM-NM-F020-2012-0026-EA, and considering the significance criteria in 40 CFR 1508.27, I have determined that the Environmental Assessment for 3 BLM Allotments Located in San Miguel, Santa Fe, and Union Counties will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

_____ _____

Authorized Officer Date

DECISION RECORD

ENVIRONMENTAL ASSESSMENT FOR 3 BLM ALLOTMENTS LOCATED IN SAN MIGUEL, SANTA FE, AND UNION COUNTIES

DOI-BLM-NM-F020-2012-0026-EA

Decision

It is my decision to proceed with the issuance of the grazing leases for the allotments as described in the **Proposed Action**, Alternative A, within the Environmental Assessment DOI-BLM-NM-F020-2012-0026-EA. The allotments include: 00756 Turkey Canyon, 00851 Arroyo Chorro, and 00902 Arroyo del Mesteno. The decision incorporates by reference the terms and conditions specified in section 2.1 and Appendix 1of the EA and other terms and conditions attached to all permits and leases.

Land Use Plan Conformance

As discussed in section 1.3, the Proposed Action is in conformance with the 2012 Taos Resource Management Plan (RMP), which specifically provides for the management actions considered in this EA.

Rationale for Decision

Based upon the rangeland health functionality analysis and the findings included in the environmental assessment, the grazing leases will not cause any unnecessary or undue environmental degradation. This action sufficiently meets the purpose and need for the action in a manner which conforms to the 2012 Taos Resource Management Plan, as discussed above.

As discussed under section 5.2 of the EA, public involvement was encouraged in the preparation of the EA, including the solicitation of public comments on the allotment evaluations. However, the Taos Field Office did not receive any comments during the preparation of the documents.

Opportunity to Appeal

Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the Final Decision, a notice of appeal must be filed in the office of the Authorized Officer at Taos Field Office, 226 Cruz Alta Road, Taos, New Mexico 87571. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the Authorized Officer.

_____ _____

Authorized Officer Date

Attachments: Environmental Assessment DOI-BLM-NM-F020-2012-0026-EA

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Chapter 1: Introduction

1.1 Background
One of the major uses of public lands administered by the Bureau of Land Management (BLM) has traditionally been the grazing of cattle, sheep or horses for the benefit of individuals and communities throughout the western United States. This use is provided for and regulated by public land legislation, including the Taylor Grazing Act, the Endangered Species Act, the Federal Land Policy and Management Act, and the Public Rangelands Improvement Act.

This document provides information necessary to consider authorizing grazing leases within San Miguel, Santa Fe, and Union Counties, New Mexico. The allotments addressed in this environmental assessment include: 00756 Turkey Canyon, 00851 Arroyo Chorro, and 00902 Arroyo del Mesteno. Individual allotment maps are available at the Taos Field Office (TFO) or can be obtained by visiting www.geocommunicator.gov.

1.2 Purpose and Need for Action
The purpose of this action is to provide for livestock grazing on an allotment basis in a manner that promotes healthy, sustainable rangeland ecosystems. Grazing leases on the allotments identified above are due to expire. Since objectives for rangeland health are appropriately applied on a watershed basis, the BLM needs to consider grazing leases on each of these allotments on a watershed basis to ensure legislative compliance and conformance with the applicable land use plan.

1.3 Land Use Plan Conformance and Grazing Regulations Compliance
The proposed lease renewals within this document are in conformance with the Taos Resource Area Management Plan (2012), which analyzed impacts for livestock grazing on a resource area-wide basis. The Proposed Action is consistent with any revisions proposed in the RMP.

In conjunction with the Statewide Resource Management Plan Amendment and Environmental Impact Statement for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management and 43 Code of Federal Regulations 4180, an allotment evaluation (AE) document is required to determine if allotments are meeting standards and guidelines. An AE has been prepared for each allotment and is available for review at the TFO, as well as a determination document (DD) for those allotments found to be not meeting standards – although all of the subject allotments are meeting standards and guidelines. Both the AE and the DD were provided for comment to the lessees and the interested public and can be obtained from the TFO.

1.4 Identification of Issues
In January of 2011 a meeting was held with the BLM interdisciplinary team to inform them that these leases needed to be renewed and applications for grazing preference processed, and this warranted a field visit to determine if Standards and Guidelines are being met in the subject allotments. Also, a letter was sent to the affected lessees and all interested publics during January 2012 to inform them that the subject allotments were being visited to assess Standards and Guidelines. Field evaluations were conducted during the spring of 2012. The resulting AEs and DDs were provided to the affected lessee and interested publics from June 26 to July 12, 2012, for an opportunity to review and comment on the evaluations.

Based on these efforts, the following issues have been determined relevant to the analysis of this action:

1.4.1 Water Quality

- Potential for livestock grazing in the subject allotments to contribute to the degradation of water quality in the Carrizozo Creek (00756), Outlet Galisteo Creek (00851) and Cañon Largo – Canadian River (00902) Watersheds.

1.4.2 Wildlife

- Potential for competition with big game for forage resources and habitat.

1.4.3 Soils

- Potential for livestock grazing to contribute to soil erosion.

1.4.4 Upland Vegetation

- Potential for livestock grazing to impact vegetation diversity or modify vegetative structure.

1.5 Issues considered but dismissed from analysis:

- **Air Quality:** The Clean Air Act Amendments in 1990 required that all federal actions conform to State Implementation Plans for air quality. The subject allotments are not located in or near a non-attainment area and the action discussed will not result in air quality impairments. Releases of greenhouse gases for all alternatives will be *de minimus*.

- **Cultural Resources:** Most of the subject allotments fall within areas in which National Register eligible cultural resources are likely to be present. Periodic monitoring and review of eligible cultural resources is performed by the BLM to gauge their condition and to identify any new or cumulative adverse effects that might alter their status or condition, particularly with regard to changes in grazing activities and lease renewals. Monitoring and periodic reassessment of cultural resources located on BLM grazing leases is provided for in the current RMP along with the option to implement remedial actions (including avoidance) should such actions be required to inhibit or fully eliminate identified adverse effects. The current assessment referenced in this EA concludes that no NRHP eligible properties are, or will be, adversely affected by renewal of the subject lease agreement. Allotment 00851 contains one site which will be excluded from grazing in July of 2014. This decision was made in the Taos RMP to protect an archeological site.

- **Native American Religious Concerns:** There have been no areas of concern identified within the subject allotments to date. All tribes within the Field Office boundary will receive further opportunities to provide information on any areas of concern in or near the subject allotments.

- **Noxious Weeds:** During visits to the subject allotments for evaluation of Standards and Guidelines no noxious weeds were encountered. If any are found in the future they would be addressed by the Taos Field Office (TFO) Programmatic Treatment Plan for the Rapid Response to Weeds. This Environmental Assessment authorizes the TFO to treat small acreages of state listed noxious weeds. Under BLM regulations supplemental feed is only allowed after authorization by the BLM. The TFO will only authorize certified weed free supplements as a mitigation measure for noxious weeds.

- **Threatened or Endangered Species or BLM Sensitive Species:** Federally listed threatened (T) and endangered (E) species in San Miguel, Santa Fe, and Union Counties, New Mexico, include: black-footed ferret (*Mustela nigripes*) (E); Southwestern willow flycatcher (*Empidonax traillii*

extimus) (E); Holy Ghost Ipomopsis (*Ipomopsis sancti-spiritus*) (E); Rio Grande silvery minnow (Hybognathus amarus) (E); Arkansas river shiner (*Notropis girardi*) (T) and Mexican spotted owl (*Strix occidentalis lucida*) (T). It is determined that there are no federally listed threatened or endangered species likely to be found in the subject allotments. There is no designated critical habitat for any species listed by the U.S. Fish and Wildlife Service (USFWS) within the allotments. It is determined that the proposed action and no grazing alternative will have no effect on federally listed species, and no adverse effect on BLM Sensitive species.

Migratory bird species of conservation concern that have the potential to occur on the allotments include golden eagle, mourning dove, and killdeer. The proposed action has the potential to have a negative effect upon individual birds, eggs, young and/or the nesting habitat of ground nesting birds; however, there would be no noticeable impact to the population or to the species as a whole. The no grazing alternative could have either a beneficial or detrimental effect on individual migratory bird species of concern, depending on the response of range condition and individual species requirements, but affects at the population or species level would not be adverse.

It is determined that the renewal of grazing on the subject allotments would have no impact on federally listed threatened or endangered species, and no adverse effect on federal proposed, candidate or BLM Sensitive species.

Chapter 2: Description of Alternatives

2.1 Alternative A: Proposed Action (No Action Alternative)

Proposed Action would be to issue 10 year term grazing leases as outlined in Table 1. Table 1 depicts current lease information. For additional information, refer to the allotment evaluation documents available for each allotment at the TFO. See Appendix 1 for other terms and conditions for each allotment.

Table 1. Outline of allotment guidelines for No Action

Allotment Number	Livestock Type	Livestock Number	Season of Use	Total Federal Acres	Pastures	Grazing System	Proposed Improvements
00756	Cattle	1	3/1 – 2/28	40	1	Rotational with private	None
00851	Cattle	12	3/1 – 2/28	644	2	Rotational with private	None
00902	Cattle	8	11/1 – 2/28	645	2	Rotational with private	None
Monitoring: BLM would continue the rangeland monitoring study program, continue to consult with the grazing permittee on placement of mineral and supplemental feed and continue monitoring for new populations of noxious weeds.							
** These will be addressed in a subsequent NEPA document if and when funding is available.							

2.2 Alternative B: No Grazing

Do not issue grazing permits for these allotments, thereby suspending livestock grazing.

Location and Maps

00756 - Located approximately 25 miles north northeast of Clayton, in Union County, New Mexico. The allotment is located on the USGS Greendailey Canyon 7.5 minute series topographic map. T30N, R37E, Sec 17.

00851 - Located approximately 2 miles west of Lower Pueblo, in San Miguel County, New Mexico. The allotment is located on the USGS Sena 7.5 minute series topographic map. T13N, R14E, Sec 28.

00902 - Located approximately 1 mile south and 10 miles southwest of Sabinoso in San Miguel County, New Mexico. The allotment is located on the USGS Cañon Olguin, Sabinoso, and San Ramon 7.5 minute series topographic maps. T16N, R23E, Sec 33 and T17N, R24E, Sec 20 and 21.

See Appendix 2 for maps of the locations of the allotments.

Chapter 3: Affected Environment

As the three subject allotments are located so far away from each other (see Appendix 2) this portion of the document will address each allotment separately.

Allotment 00756 is located within the Carrizozo Creek watershed in Union County, New Mexico. This allotment is the only BLM land within the watershed comprising roughly 0.03% of the watershed that is within the TFO. Overland flow or runoff from this watershed drains into Carrizozo Creek. Topography within allotment 00756 is varied from mesa top, escarpments and Turkey Canyon.

Allotment 00851 is located within the Outlet Galisteo Creek and Headwaters Galisteo Creek watersheds in Santa Fe County, New Mexico. This allotment comprises roughly 0.3% of the Outlet Galisteo Creek watershed and 0.01% of the Headwaters Galisteo Creek watershed that is within the TFO. Overland flow or runoff from this watershed drains into Galisteo Creek. Topography within allotment 00851 is varied, from uplands, mesa, escarpements, and arroyos.

Allotment 00902 is located within the Cañon Largo – Canadian River watershed in San Miguel County, New Mexico. This allotment comprises roughly 0.3% of the watershed that is within the TFO. Overland flow or runoff from this watershed drains into the Canadian River. Topography within allotment 00902 consists of mesa, cliffs/escarpments, and toeslopes

In the evaluation process field crews completed the Rangeland Health Evaluation Summary Worksheet from BLM Technical Reference 1734-6: Interpreting Indicators of Rangeland Health for all the subject allotments. The worksheet uses key indicators to qualify the attributes of rangeland health: Soil and Site Stability, Hydrologic Function, and Biotic Integrity. Each indicator is given a rating (none to total) based on the departure of the indicator from expected conditions. The actual worksheets are available within the allotment file. Table 2 indicates the attribute rating for each allotment.

Table 2. Summary of departure of rangeland health attributes by allotment.

Allotment Number	Survey Date	Soil/Site Stability	Hydrologic Function	Biotic Integrity
00756	11/3/2010	None to Slight	None to Slight	None to Slight
00851	3/21/2012	None to Slight	None to Slight	None to Slight
00902	3/21/2012	Slight to Moderate	Slight to Moderate	Slight to Moderate

The TFO uses this tool to identify rangelands that may not be meeting Standards and Guidelines in order to make management decisions to improve public land health. If an allotment or pasture falls below 80% in the Soil Site Stability, Hydrologic, or Biotic indicators, and causal factors are not understood, more intensive monitoring would be established to determine the cause(s) of the low rating.

3.1 Water Quality

3.1.1 Allotment 00756 is located in Hydrologic Unit Code (HUC) 1104000107, or the Carrizozo Creek Watershed, which comprises 125,800 acres in the TFO. Of the acres within the TFO, allotment 00756 comprises 40 acres. Allotment 00851 is located in Hydrologic Unit Code (HUC) 1302020103 and 1302020104, or the Headwaters Galisteo Creek and Outlet Galisteo Creek Watersheds, which comprise 222,425 and 206,345 acres in the TFO, respectively. Of the acres within the TFO, allotment 00851 comprises 644 acres. Allotment 00902 is located in Hydrologic Unit Code (HUC) 1108000306, or the Cañon Largo – Canadian River Watershed, which comprises 204,758 acres in the TFO. Of the acres within the TFO, allotment 00902 comprises 645 acres. In conjunction with the United Sates Environmental Protection Agency (EPA), the New Mexico Environmental Department (NMED) surveyed and evaluated perennial reaches in 2010 and identified impairments for stream reaches not meeting water quality standards for designated uses.

Table 3. Summary of BLM allotments by 10 Digit HUC by NMED evaluation unit.

NMED Assessment Unit	Watershed	Allotments	BLM Acreage	Percent of Watershed
NM-2118.A_10	Headwaters Galisteo Creek Outlet Galisteo Creek	00851	28 616	0.01% 0.3%
NM-2305.A_000	Cañon Largo – Canadian River	00902	645	0.3%
NM-2701_40	Carrizozo Creek	00756	40	0.03%

The following impairments are identified for the NM-2118.8A_10 assessment unit – Galisteo Creek (Perennial Reaches Above Santo Domingo Boundary): High quality coldwater aquatic life. The cause of the impairment is due to water temperature and specific conductivity. Probable sources include: loss of riparian habitat, natural sources, rangeland grazing, and streambank modifications/destabilization.

The following impairments are identified for the NM-2305.A_000 assessment unit – Canadian River (Conchas River to Mora River): secondary contact. The cause of the impairment is due to E. Coli. Probable sources include: Drought related impacts and rangeland grazing.

New Mexico Environmental Department evaluation unit NM2701_40 (Carrizozo Creek – Dry Cimarron to Headwaters) has not been assessed.

3.2 Wildlife

3.2.1 Portions of the allotments are located in the Western Great Plains Shortgrass Prairie, a key wildlife habitat type as identified in the Comprehensive Wildlife Conservation Strategy of the New Mexico Department of Game and Fish (2006). Much of the topography is flat to rolling plains dissected by canyons and caprock escarpments. Existing habitat within the subject allotments include; pinyon-juniper woodlands, and occasional clusters of ponderosa pine, with a perennial warm season grass savanna on the mesa tops which supports seasonal home ranges for pronghorn, elk, mule deer, mountain lion, bobcat, black bear, fox, coyote, rodents, bats, raptors, songbirds, amphibians, and a variety of insects.

3.3 Soils

3.3.1 Soils in the subject allotments consist of mainly loams but a list of soils from the Natural Resource Conservation Service (NRCS) Soil Survey of San Miguel County Area, New Mexico (1981), Soil Survey of Santa Fe County Area (2008), and Union County (1981) are found below. Soil descriptions can be found in each allotments file at the TFO within the Allotment Evaluation or in the NRCS soil survey.

Allotment 00756: Kim-Manzano association, 0 to 9 percent slope; Travessilla-Rock outcrop complex, 0 to 15 percent slope; Travessilla-Rock outcrop complex, 30 to 75 percent slope.

Allotment 00851: Cumacho fine sandy loam, 2 to 8 percent slopes; Devargas-Riovista-Riverwash complex, 0 to 5 percent slopes; Galisteo silty clay loam, 0 to 2 percent slopes; Hagerman-Cabreros complex, 2 to 6 percent slopes; Ildefonso extremely gravelly sandy loam, 5 to 15 percent slopes; Jaralosa-Chupe-Riverwash complex, 0 to 1 percent slopes; Kech-Cerropelon-Rock outcrop complex, 5 to 50 percent slopes; Musofare-Alesna family complex, 20 to 50 percent slopes; Oelop-Charalito complex, 1 to 3 percent slopes; Penistaja family fine sandy loam, 1 to 3 percent slopes; Penistaja family loam, 3 to 8 percent slopes; Penistaja family-Truehill complex, 3 to 15 percent slopes; Puertecito-Paraje complex, 15 to 50 percent slopes; Rock outcrop-Skyvillage complex, 5 to 35 percent slopes; Sena very fine sandy loam, 0 to 2 percent slopes; Truehill extremely gravelly loam, 25 to 55 percent slopes; Zia-Gullied land complex, 2 to 10 percent slopes.

Allotment 00902: La Lande-Redona association, undulating; Latom-Newkirk-Rock outcrop association, rolling; Rock outcrop-Torriorthents complex, very steep; Ustorthents-Rock outcrop complex, very steep.

3.4 Upland Vegetation

3.4.1 Vegetation descriptions for the TFO are described by vegetation categories developed by Southwest Regional Gap Analysis Project (SWReGAP). The allotments are located in the Western Great Plains Foothill, Southern Rocky Mountain Pinyon-Juniper Woodland, Western Great Plains Shortgrass Prairie, Madrean Pine-Oak Forest and Woodland, Rocky Mountain Ponderosa Pine Woodland, Western Great Plains Riparian Woodland and Shrubland, Rocky Mountain Gambel Oak-Mixed Montane Shrubland, and Southern Rocky Mountain Juniper Woodland and Savanna. Vegetation expected for the subject allotments include: pinyon, juniper, wavy leaf oak, ponderosa pine, sideoats grama, blue grama, black grama, buffalo grass, hairy grama, western wheat, galleta, and other species in smaller amounts.

Chapter 4: Environmental Effects

4.1 Direct and Indirect Effects

This chapter describes the anticipated effects on the resource issues if the alternatives are implemented. The general effects of each alternative on resource categories are addressed. Direct effects are caused by an action and occur at the same time and place. Indirect effects are caused by an action and occur later in time or farther removed in distance.

4.1.1 Alternative A: No Action

As described in section 2.1, the No Action alternative would issue grazing leases for currently authorized allotments according to current terms and conditions for each lease.

4.1.1.1 Water Quality

Grazing on BLM administered lands within the three watersheds is very minimal (combined total of less than 1%). Based on the AEs for the subject allotments there would not likely be increased water quality impairments resulting from the no action alternative. This conclusion is based on the site assessments only slight departure from what is expected for the sites within the three subject allotments. It was identified in the AEs that the most likely reason contributing to the possibility for increased erosion in the allotments was the influence of woody species encroachment coupled with the lack of fire rather than the current grazing management of the allotments.

4.1.1.2 Wildlife

During the evaluation process there was no evidence to show wildlife are being adversely affected by livestock grazing. Judicious grazing practices can have positive effects on wildlife and can be a beneficial management tool to increase vegetation composition and diversity, improve forage availability and quality for early to mid-successional wildlife species, create patchy habitat with high structural diversity for feeding, nesting and hiding, open up areas of dense vegetation to improve foraging areas for a variety of wildlife; remove rank, coarse grass that would encourage regrowth and improve abundance of high quality forage for wild ungulates, and improving nutritional quality of browse by stimulating plant regrowth (NMDGF 2006).

Studies in northern New Mexico have indicated that total elimination of grazing did not improve range condition on upland or lowland sites when compared with adjacent moderately grazed areas (Holechek and Stephenson 1985). Smith et al. (1996) found that lightly grazed climax rangelands and conservatively grazed late seral rangelands had similar songbird and total bird populations. They also concluded that wildlife diversity was higher on the conservatively grazed late seral than the lightly grazed climax rangeland. Studies in southeastern Arizona by Bock et al. (1984) support the hypothesis that conservatively to moderately grazed areas in mid or late seral condition supported greater diversity of wildlife than ungrazed areas in climax condition. Livestock grazing was also shown to enhance forage for elk and manage their distribution by increasing availability and nutritional value of preferred grasses in early growth stages (Holechek et al. 2004). Best management practices would ensure that forage production within this area can support wildlife and livestock on a sustained basis.

4.1.1.3 Soils

Under current management, soil indicators for the allotments range from none to slight, to slight to Moderate. The lowest Soil and Site Stability rating was Slight to Moderate (see Table 2). The lower ratings have been attributed to influences of historic grazing coupled with the lack of fire and subsequent pinyon/juniper encroachment, and not to current grazing management.

4.1.1.4 Upland Vegetation

Under current management it has been determined that the current grazing systems within the subject allotments are not adversely affecting the vegetation. The lowest Biotic Integrity rating for the subject allotments was Slight to Moderate departure from the Ecological Site Description (see Table 2). The lower ratings were attributed to the lack of natural disturbance and subsequent pinyon/juniper expansion, and not current livestock grazing practices.

4.1.2 Alternative B: No Grazing

As outlined in section 2.2, the No Grazing alternative would remove grazing from all of the subject allotments.

4.1.2.1 Water Quality

The environmental effects expected for the No Grazing alternative would be the same as those stated in the No Action Alternative. Erosion on the subject allotments is largely due to encroachment of woody species and the terrain rather than current grazing management. It is expected that this alternative will not enhance or degrade water quality conditions.

4.1.2.2 Wildlife

Removing livestock grazing may reduce or eliminate any potential for competition with wildlife. No benefits will be seen to forage quality from grazing stimulating growth of herbaceous species.

4.1.2.3 Soils

Removing livestock grazing may reduce the amount of soil erosion by removing trampling during periods with little moisture.

4.1.2.4 Upland Vegetation

Removing livestock grazing may remove stress to plants.

4.2 Cumulative Effects Analysis

A cumulative impact, as defined in 40 CFR 1508.7, is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other action.

4.2.1 Cumulative Actions

4.2.1.1 Past and Present Actions

Livestock grazing, past and present, is only one of several possible disturbance activities within the area. Historic grazing within the TFO initiated with the majority of the livestock being sheep with very little cattle. Over time, more and more operators changed their class of livestock from sheep to cattle. Today, the TFO only has one operator that runs sheep. Grazing practices historically where very different than today. Since the 1950s, actual grazing use across the BLM has dropped over 50%. Other past and present cumulative actions within the subject allotments include: off-road vehicles use, other recreational use and road construction and maintenance.

4.2.1.2 Reasonably Foreseeable Actions

Actions that are reasonably foreseeable include future vegetation manipulations. Another foreseeable action includes potential modifications to grazing leases as the result of global climate change. In 2007, the Intergovernmental Panel on Climate Change (IPCC) predicted that by the year 2100, global average surface temperatures would increase 1.1 to 6.4°C above 1980 to 1999 levels. The National Academy of Sciences (2006) supports these predictions, but has acknowledged that there are uncertainties regarding how climate change may affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures. It is not, however, possible at this time to predict with any certainty the causal connection of site specific emissions from the Proposed Action or any other alternatives in this EA to impacts on the global/regional climate.

4.2.2 Cumulative Effects

4.2.2.1 Water Quality

The effects of the road use and road maintenance as well as vegetation manipulations may result in increased sedimentation into the subject watersheds.

4.2.2.2 Wildlife

Any new road construction will fragment wildlife habitat. A vegetation manipulation will temporarily remove habitat, but will provide a long-term benefit of increased forage and habitat diversity and structure. Climate change has the ability to shift vegetation patterns which would alter habitat associations and distribution of wildlife species and, coupled with livestock grazing, the shifts may be exacerbated. These shifts should be made evident by the allotment monitoring protocols, and will be addressed if and when they occur.

4.2.2.3 Soils

Disturbance caused by livestock grazing, off-road vehicle use, and vegetation manipulations may increase the amount of erosion to the soils. Livestock grazing will be excluded from vegetation treatment areas for at least two growing seasons as a design feature to minimize possible adverse effects to soil stability.

4.2.2.4 Upland Vegetation

Any new road construction will remove or disturb vegetation. A vegetation manipulation will temporarily remove vegetation, but will provide a long-term benefit of meeting the New Mexico Standards for Rangeland Health. Climate change has the ability to shift vegetation patterns and coupled with livestock grazing the shifts may be exacerbated. These shifts should be made evident by the allotment monitoring protocols, and will be addressed if and when they occur.

Chapter 5: Consultation and Coordination

5.1 Summary of Consultation and Coordination

The affected lessees and the interested public were given opportunity to do site visits to the allotments, comment on the Allotment Evaluations and to comment on this Environmental Assessment. To date no comment has been made regarding the evaluation or analysis of the subject allotments.

5.2 Summary of Public Participation

This Environmental Assessment has been mailed to all individuals or organizations who have notified the Taos Field Office of their interest. These individuals or organizations are given 15 days to make comments on the accuracy of this document.

5.3 List of Preparers

This document was prepared and reviewed by a team from the Taos Field Office. They include:

Merrill Dicks - Archeologist
Scott Draney - Department of Game and Fish
Greg Gustina - Fish Biologist
Brad Higdon – Planning and Environmental Coordinator
Tami Torres - Outdoor Recreation Planner
Derek Trauntvein – Rangeland Management Specialist
Paul Williams – Archeologist
Valerie Williams - Wildlife Biologist
Jacob Young - Rangeland Management Specialist

Chapter 6: References

Bock, C.E., J.H. Bock, W.R. Kenny, and V.M. Hawthorne. 1984. Response of birds, rodents, and vegetation to livestock exclosure in a semidesert grassland site. Journal of Range Management 37: 239-242.

Holechek, J.L. and T. Stephenson. 1983. Comparison of big sagebrush vegetation in north central New Mexico under moderately grazed and grazing excluded conditions. Journal of Range Management 36: 455-456.

Holechek, J.L., T.T. Baker, and J.C. Boren. 2004. Impacts of controlled grazing versus grazing exclusion on rangeland ecosystems: what we have learned. New Mexico State University Cooperative Extension Service, Range Improvement Task Force Report 57. Las Cruces, New Mexico. 42 pp.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Basis (Summary for Policymakers). Cambridge University Press. Cambridge, England and New York, New York. (Available on the Internet: http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf)

National Academy of Sciences. 2006. Understanding and Responding to Climate Change: Highlights of National Academies Reports. Division on Earth and Life Studies. National Academy of Sciences. Washington, D.C. (Available on the Internet: http://dels.nas.edu/basc/Climate-HIGH.pdf.)

New Mexico Department of Game and Fish. 2005. Comprehensive Wildlife Conservation Strategy for New Mexico. New Mexico Department of Game and Fish. Santa Fe, New Mexico. 526 pp + appendices.

Smith, G., J.L. Holechek, and M. Cardenas. 1996. Wildlife numbers on excellent and good condition Chihuahuan Desert rangelands: an observation. Journal of Range Management 49: 489-493.

Soil Conservation Service Soil Survey of San Miguel County Area, New Mexico, 1981.

Soil Conservation Service Soil Survey of Santa Fe County Area, New Mexico, 2008.

Soil Conservation Service Soil Survey of Union County Area, New Mexico, 1981.

Appendix 1: Other Terms and Conditions

These Terms and Conditions apply to all of the subject allotments:

In accordance with 43 CFR 4130.3-1 this permit/lease is subject to cancellation, suspension, or modification for any violation of any regulation in 43 CFR subchapter D - Range Management (4000) or any Term or Condition of this permit/lease.

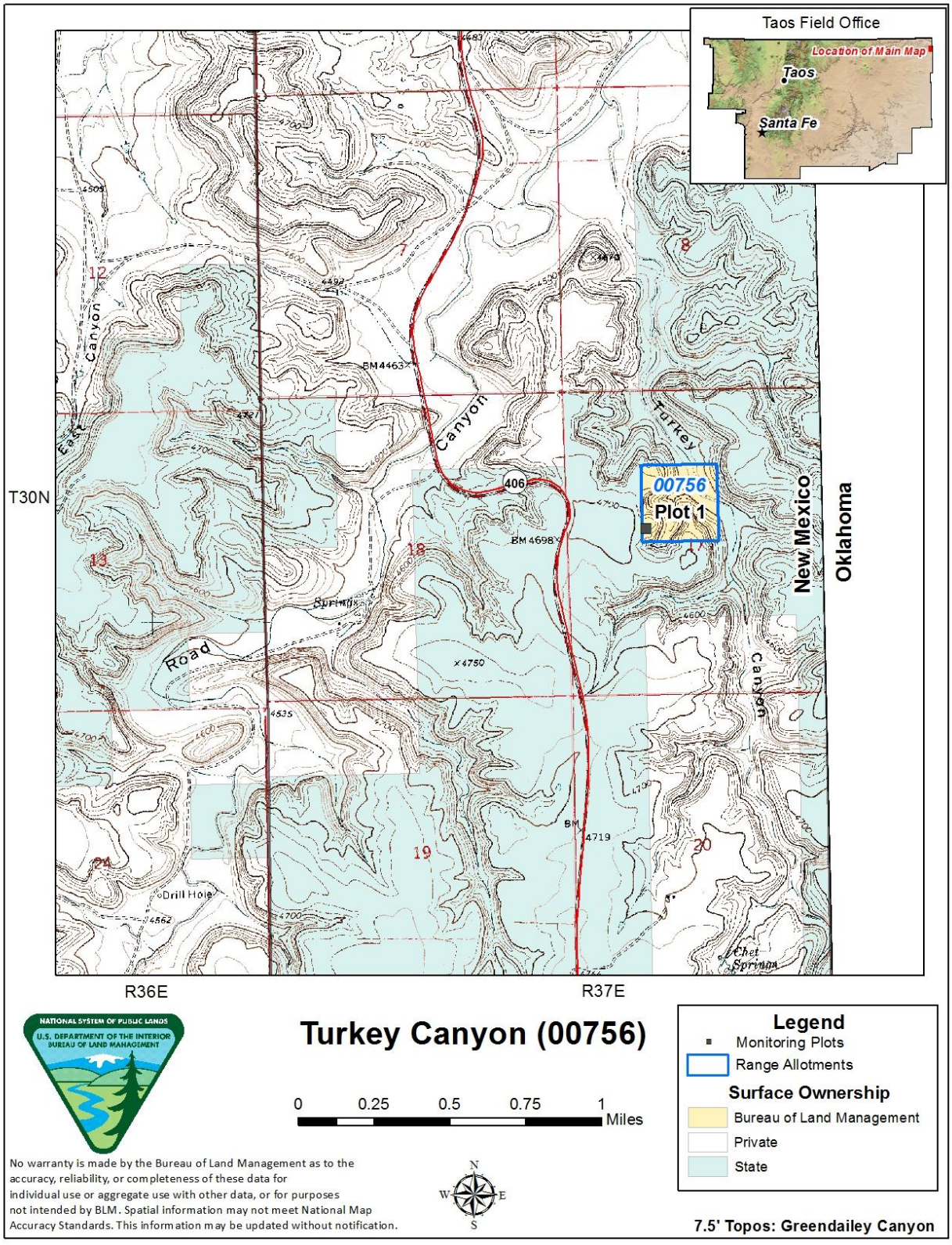
Livestock grazing may be delayed, discontinued or modified to allow for the protection of rangeland resources and values when there is a lack of plant growth as outlined in the Taos Field Office Range Readiness and Monitoring Plan for Grazing Allotments.

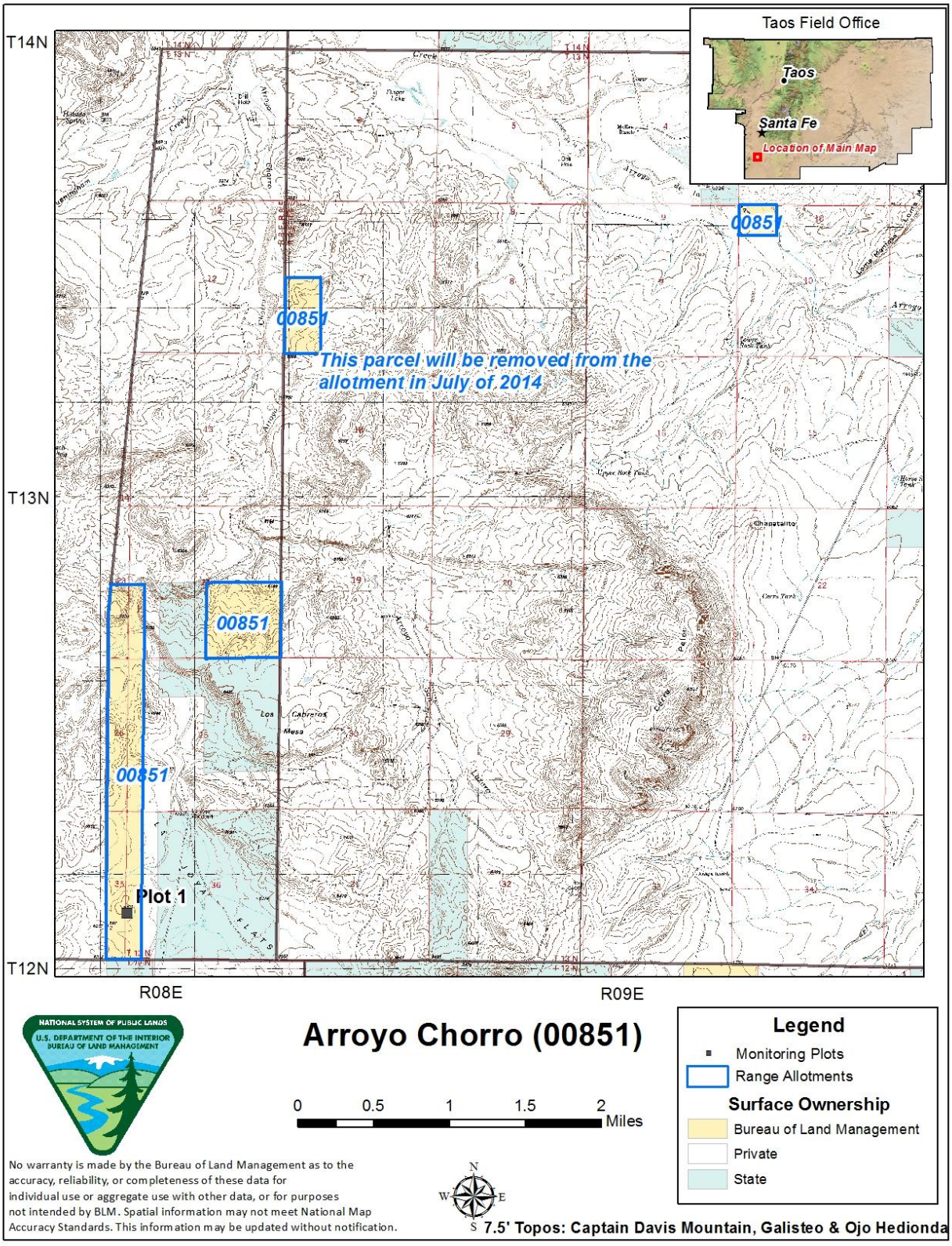
Improvements must be satisfactorily maintained prior to permit/lease begin date or authorization for grazing will not be issued until maintenance responsibilities are completed.

Maintain accurate actual use records detailing the dates and numbers of livestock placed on and removed from the grazing allotment(s) on a "by-pasture" and maintain records of the amount and type of approved supplemental feed consumed by livestock while on the allotment(s). These records are due in the Taos BLM office within 15 days of the permit/lease "off" date.

Lessee shall provide reasonable access across private and leased lands to the Bureau of Land Management for the orderly management and protection of public lands.

Appendix 2: Maps of subject allotments





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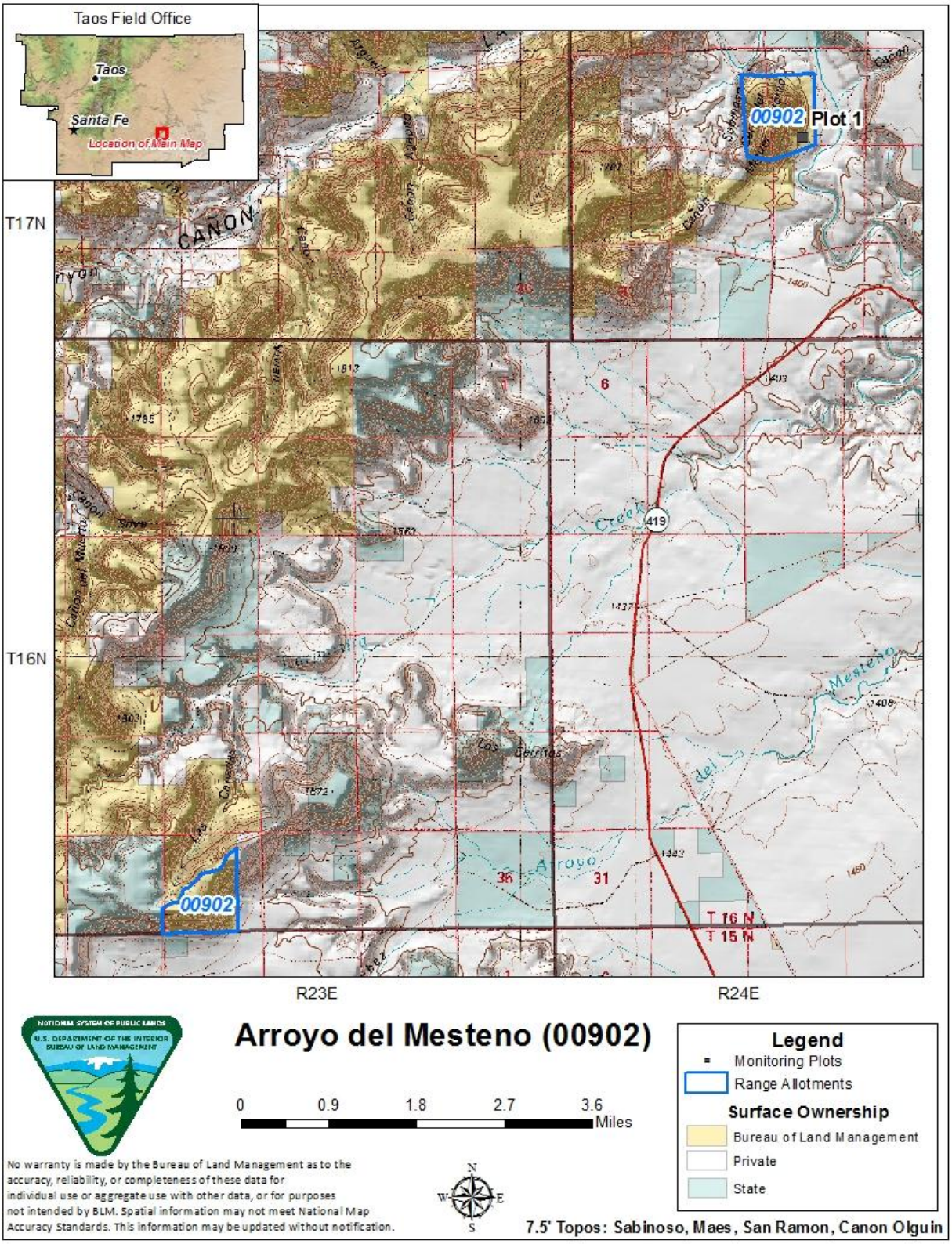

Arroyo del Mesteno (00902)

0 0.9 1.8 2.7 3.6 Miles

Legend

- Monitoring Plots
- Range Allotments

Surface Ownership

- Bureau of Land Management
- Private
- State

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.

7.5' Topos: Sabinoso, Maes, San Ramon, Canon Olguin